IN THE CLAIMS

Cancel claim 1.

Please add new claims 2 - 30.

2. (New) A method for controlling speed of a vehicle, comprising:

monitoring a throttle position; and

decelerating the vehicle at a deceleration rate associated with the monitored throttle position when the throttle position indicates a braking condition.

3. (New) The method according to claim 2 including slipping a first clutch pack associated with a forward vehicle direction and slipping a second clutch pack associated with a reverse vehicle direction at the same time when the braking condition is indicated.

4. (New) The method according to claim 3 including:

reducing pressure for the first clutch pack when the braking condition is detected; and

increasing pressure for the second clutch pack when the braking condition is detected.

5. (New) The method according to claim 4 including modulating the pressure for the first clutch pack to distribute braking energy between the first and second clutch pack and holding a converter turbine at a substantially constant near zero speed.

6. (New) The method according to claim 5 including increasing the pressure for the second clutch pack and decreasing the pressure for the first clutch pack when a vehicle speed reaches approximately zero during a power reversal braking condition.

7. (New) The method according to claim 3 including applying slipping pressure for the first clutch pack and applying slipping pressure for the second clutch pack corresponding to the monitored throttle position.

8. (New) The method according to claim 7 including:

applying a low clutch slipping pressure for the first and second clutch pack when an accelerator pedal throttle position is slightly above an idle position; and

increasing the clutch slipping pressure for the first and second clutch pack as the accelerator pedal throttle position is lifted higher toward a full deceleration position.

9. (New) The method according to claim 8 including:

stopping the vehicle with the first and second clutch pack;

holding the vehicle in the stopped condition until the throttle position indicates an acceleration condition; and

increasing the pressure for one of the first and second clutch packs associated with a desired direction of travel and decreasing the pressure for the other first and second clutch pack.

10. (New) The method according to claim 3 including slipping a third or additional clutch packs associated with the same direction of vehicle travel as the first clutch pack when the braking condition is indicated.

11. (New) The method according to claim 10 including:

reducing pressure for the first clutch pack when the braking condition is detected; and

increasing pressure for additional clutch packs when the braking condition is detected.

12. (New) The method according to claim 11 including modulating the pressure for the first clutch pack to distribute braking energy between the first clutch pack and the additional clutch packs while holding a converter turbine at a low speed.

13. (New) A braking system, comprising:

a first clutch pack associated with a first direction of vehicle travel;

a second clutch pack associated with a second direction of vehicle travel; and

a processor monitoring an accelerator position and slipping both the first clutch pack and slipping the second clutch pack when the monitored accelerator position indicates a braking condition.

14. (New) The braking system according to claim 13 including an accelerator sensor, the processor automatically initiating proportional clutch pack braking using the first and second clutch pack when the accelerator sensor indicates an accelerator pedal is being released and has moved past an idle position.

15. (New) The braking system according to claim 14 wherein the processor varies a rate that the first and second clutch packs decelerate a vehicle according to the position of the accelerator pedal in an idle zone.

16. (New) The braking system according to claim 15 wherein the deceleration rate continuously varies from a maximum deceleration rate at a maximum idle position to a minimum deceleration rate at a minimum idle position.

17. (New) The braking system according to claim 13 including a direction sensor used by the processor for initiating clutch pack braking during a power reversal.

18. (New) The braking system according to claim 13 including a memory storing clutch pack pressure parameters associated with different accelerator positions, the processor using the clutch pack pressure parameters in memory associated with the monitored accelerator position to activate the first and second clutch packs.

19. (New) The braking system according to claim 13 wherein the first clutch pack is associated with a current forward direction of vehicle travel and the second clutch pack is associated with a current reverse direction of vehicle travel, the processor increasing a slipping pressure for the second clutch pack to reduce a torque

converter speed to a substantially constant low torque converter speed while at the same time applying slipping pressure for the first clutch pack that maintains the substantially constant low torque converter speed and also distributes braking energy between the first and second clutch pack.

20. (New) The braking system according to claim 19 wherein the processing device maintains a substantially constant pressure for the second clutch pack when the torque converter speed is reduced to the substantially constant low torque converter speed and modulates pressure for the first clutch pack to maintain the substantially constant low torque converter speed and distribute braking energy between the first and second clutch pack.

21. (New) The braking system according to claim 13 including a third or additional clutch packs associated with the same direction of vehicle travel as the first clutch pack; and

a processor monitoring an accelerator position and simultaneously slipping the first clutch pack and two or more additional clutch packs when the monitored accelerator position indicates a braking condition.

22. (New) A control system for a vehicle, comprising:

a processor configured to monitor for a low energy efficiency condition in the vehicle and automatically limit the vehicle to an approximately constant vehicle torque below a maximum torque when the low energy efficiency condition is detected.

23. (New) The control system according to claim 22 wherein the processor automatically reduces engine speed when the low energy efficiency condition is detected until a converter slip speed reaches a predetermined mapped value.

24. (New) The control system according to claim 22 wherein the processor limits the vehicle torque when a speed of the vehicle drops below a predetermined value and the low energy efficiency condition is detected.

25. (New) The control system according to claim 22 including a torque converter temperature sensor used by the processor to detect the low energy efficiency condition when the torque converter temperature rises above a predefined value.

26. (New) The control system according to claim 25 wherein the processor automatically reduces engine speed when the torque converter temperature rises above a predefined value.

27. (New) The control system according to claim 22 including a torque converter slip monitor used by the processor to detect the low energy efficiency condition when a torque converter slip is above a predefined value.

28. (New) The control system according to claim 27 wherein the processor automatically reduces engine speed when a torque converter slip is above a predefined value.

29. (New) The control system according to claim 22 wherein the processor automatically switches from a higher gear to the low gear when the low energy efficiency condition is detected and limits the vehicle torque value below a maximum torque value available for the low gear.

30. (New) The control system according to claim 22 wherein the processor limits the vehicle torque value by progressively decreasing a vehicle engine speed as the vehicle speed progressively decreases.